

Hi KIPPsters!

Here you can find resources to help you complete your science work, and fun additional science activities to try out! Use the glossaries in your work packet to look up the meaning of a vocabulary word, or watch one of the Magic School Bus Episodes to learn more about our science topics!

Stay Curious and Keep Growing your Scientist Brains!

General Science Resources for Any Age

Videos:

Anything narrated by David Attenborough (“Planet Earth” or “Blue Planet” for example)

[Brainpop Jr.](#) - tons of fun, informative learning videos and activities

Learning Websites:

[Code.org](#) - kids learn basic coding/programming

[National Geographic Kids](#) - Science videos, readings, and activities

[MysteryScience](#) - fun Science lessons

Activities:

[KIPP STEM at home Science/Engineering challenges](#)

[WASH YOUR HANDS experiment](#)

[Bubble Science](#)

[Save the Sea Turtles](#)

[Save the Sea Turtles Sign up page](#)

[Generation Genius, Activities and Videos](#)

Virtual Zoo Visit - The Cincinnati Zoo is [live-streaming its animals on Facebook](#), because the zoo itself is closed

Also check out our BINGO boards at the end of this document!

Kindergarten Online Science Resources

Week 1 (3/30 - 4/3) - Pushes & Pulls:

Videos:

- [Crash Course for Kids, #12.1 “What is an Engineer?”](#)
- [Crash Course for Kids, #12.2 “The Engineering Process”](#)
- [Crash Course for Kids, #18.1 “Defining the Problem”](#)

Activities:

- [Design and Test a Parachute](#)
- [Rube Goldberg Machine](#)
- [Pushes and Pulls](#)

Class Books:

- [Talking About Forces](#) ([en español aquí](#))
- [A Busy Day in Pushville](#) ([en español aquí](#))

- [Forces in Ball Games](#) ([en español aquí](#))
- [Building with Forces](#) ([en español aquí](#))
- [Room 4 Solves a Problem](#) ([en español aquí](#))

Week 2 (4/6 - 4/10) - We are Scientists (5 Senses):

Videos: *(available on Netflix or YouTube)*

- Magic School Bus, Season 2 Episode 2 “Flexes its Muscles”
- Magic School Bus, Season 2 Episode 13 “Ups and Downs”
- Magic School Bus, Season 3 Episode 13 “Family Holiday Special- Recycling”

Activities:

- [Taste Test, without Smell](#)
- [Test your Dominant Side](#)

Week 3 and 4 (4/13 - 4/24) - Needs of Plants and Animals:

Videos: *(available on Netflix or YouTube)*

- Magic School Bus, Season 1 Episode 5 “Hops Home”
- Magic School Bus, Season 1 Episode 7 “All Dried Up”
- Magic School Bus, Season 1 Episode 11 “Goes to Seed”
- Magic School Bus, Season 1 Episode 12 “Ants in its Pants ”
- Magic School Bus, Season 2 Episode 5 “Butterfly and the Bog Beast”
- Magic School Bus, Season 3 Episode 10 “Gets Planted”
- Crash Course for Kids, #21.2 “Food Webs”

Activities:

- [Butterfly Life Cycle](#)

Class Books:

- [Science Walk](#) ([en español aquí](#))
- [Handbook of Plants](#) ([en español aquí](#))
- [Above and Below](#) ([en español aquí](#))
- [A Plant in the Desert](#) ([en español aquí](#))
- [Investigating Monarchs](#) ([en español aquí](#))

First Grade Online Science Resources

Week 1 (3/30 - 4/3) - The Spinning Earth:

Videos: *(available on Netflix or YouTube)*

- Magic School Bus, Season 4 Episode 7 “Sees Stars”
- Crash Course for Kids, #5.1 “Here comes the sun”
- Crash Course for Kids, #8.2 “Following the sun”

- Crash Course for Kids, #11.1 “Seasons and the sun”

Activities:

- [Sunrise, Sunset](#)

Class Books:

- [After Sunset](#) ([en español aquí](#))
- [What Spins?](#) ([en español aquí](#))
- [Patterns of Earth and Space](#) ([en español aquí](#))
- [A Walk Through the Seasons](#) ([en español aquí](#))
- [Nighttime Investigation](#) ([en español aquí](#))

Week 2 (4/6 - 4/10) - Animal and Plant Defenses:

Videos: (*available on Netflix or YouTube*)

- Magic School Bus, Season 4 Episode 12 “In the City”
- Magic School Bus, Season 4 Episode 13 “Takes a Dive”

Activities:

- [Plant Seeds and Watch them Grow](#)

Class Books:

- [Tortoise Parts](#) ([en español aquí](#))
- [Whose Lunch is This?](#) ([en español aquí](#))
- [Spikes, Spines, and Shells](#) ([en español aquí](#))
- [Parents and Offspring](#) ([en español aquí](#))
- [Frog Models](#) ([en español aquí](#))

Week 3 and 4 (4/13 - 4/24) - Light and Sound:

Videos: (*available on Netflix or YouTube*)

- Magic School Bus, Season 1 Episode 8 “In the Haunted House”
- Magic School Bus, Season 3 Episode 5 “Gets a Bright Idea”
- Magic School Bus, Season 3 Episode 7 “Makes a Rainbow”

Activities:

- [Glowing Water](#)
- [Making Music with Water](#)
- [Music and Sound](#)

Class Books:

- [What Vibrates?](#) ([en español aquí](#))
- [What Made This Shadow?](#) ([en español aquí](#))
- [Can You See In The Dark?](#) ([en español aquí](#))
- [Let’s Test!](#) ([en español aquí](#))
- [Engineering with Light and Sound](#) ([en español aquí](#))

Second Grade Online Science Resources

Week 1 and 2 (3/30 - 4/10) - Changing Landforms:

Videos: *(available on Netflix or YouTube)*

- Magic School Bus, Season 2 Episode 1 “Blows its Top”
- Magic School Bus, Season 3 Episode 12 “Rocks and Rolls”
- Crash Course for Kids, #10.1 and 10.2 “What on Earth” and “Weathering and Erosion”
- Crash Course for Kids, #17.1 “Landforms, HEY!”

Activities:

- [Landforms Activities, Facts and Crafts](#)
- [Make your own Geode](#)

Class Books:

- [Landform Postcards](#) *(en español aquí)*
- [Gary's Sand Journal](#) *(en español aquí)*
- [Handbook of Land and Water](#) *(en español aquí)*
- [What's Stronger?](#) *(en español aquí)*
- [Making Models of Streams](#) *(en español aquí)*

Week 2 (4/13 - 4/17) - Animal and Plant Relationships:

Videos: *(available on Netflix or YouTube)*

- Magic School Bus, Season 1 Episode 5 “Goes to Seed”
- Magic School Bus, Season 3 Episode 11 “In the Rainforest”
- Crash Course for Kids, #21.1 “Home Sweet Habitat” Or other Ecosystem based episodes

Activities:

- [Plant Projects, Facts and Crafts](#)
- [Animal Projects, Facts and Crafts](#)

Class Books:

- [My Nature Notebook](#) *(en español aquí)*
- [Investigating Seeds](#) *(en español aquí)*
- [A Plant is A System](#) *(en español aquí)*
- [Handbook of Habitats](#) *(en español aquí)*
- [Habitat Scientist](#) *(en español aquí)*

Week 3 and 4 (4/20 - 4/24) - Properties of Materials:

Videos: *(available on Netflix or YouTube)*

- Magic School Bus, Season 1 Episode 9 “Gets Ready, Set, Dough”
- Magic School Bus, Season 2 Episode 7 “In a Pickle”
- Magic School Bus, Season 3 Episode 2 “In the Arctic”
- Crash Course for Kids, #9.1 “Hunting for the Properties”
- Crash Course for Kids, #15.1 “Water, Wood and Properties”
- Crash Course for Kids, #35.1 “Organizing Properties”
- Crash Course for Kids, #35.2 “What’s My Property”

Activities:

- [Cut an Icecube in half](#)
- [Dissolving Sugar](#)
- [Easy Lava Lamp](#)

Class Books:

- [What if Rain Boots were Made of Paper?](#) ([en español aquí](#))
- [Jess Makes Hair Gel](#) ([en español aquí](#))
- [Jelly Bean Engineer](#) ([en español aquí](#))
- [Can you Change it Back?](#) ([en español aquí](#))
- [Handbook of Interesting Ingredients](#) ([en español aquí](#))

Third Grade Science Online Resources

Week 1 (3/30 - 4/3): Forces

Balancing Forces Class Books:

- [Forces All Around](#) ([en español aquí](#))
- [What My Sister Taught Me About Magnets](#) ([en español aquí](#))
- [Handbook of Forces](#) ([en español aquí](#))
- [Hoverboard](#) ([en español aquí](#))
- [Explaining a Bridge](#) ([en español aquí](#))

[Glossary for Forces Vocabulary](#)[Brainpop Jr. Forces Videos](#) (Gravity, Magnets, Pushes & Pulls)

Magic School Bus Episodes:

- [Season 1, Episode 10: "Plays Ball"](#)
- [Season 4 Episode 8: "Gains Weight"](#)

Magic School Bus Rides Again Episodes (On Netflix Only):

- Season 1 Episode 5: "The Magnetic Mambo"

Week 2 - 4 (4/6 - 4/24): Inheritance and Traits

Inheritance and Traits Class Books:

- [Blue Whales and Buttercups](#) ([en español aquí](#))
- [Handbook of Traits](#) ([en español aquí](#))
- [The Code](#) ([en español aquí](#))
- [How the Sparrow Learned Its Song](#) ([en español aquí](#))
- [Scorpion Scientist](#) ([en español aquí](#))

[Glossary for Inheritance and Traits Vocabulary](#)[Brainpop DNA Video](#)

Magic School Bus Rides Again Episodes (On Netflix Only):

- Season 2 Episode 12: "Jane's Mystery Gene"

BONUS: Coding

[Scratch Coding Project](#)

Magic School Bus Rides Again Episodes (On Netflix Only):

- Season 2 Episode 4: “Nothin’ But Net”

Fourth Grade Online Science Resources

Week 1 and 2 (3/30 - 4/10): Vision and Light

Vision and Light Class Books:

- [Handbook of Animal Eyes](#) ([en español aquí](#))
- [Seeing Like a Shrimp and Smelling Like a Snake](#) ([en español aquí](#))
- [I See What You Mean](#) ([en español aquí](#))
- [Investigating Animal Senses](#) ([en español aquí](#))

Class Simulation:

- First go to the [Amplify Science Login Page](#)
- Select “Log in with Amplify” and enter the username and password:
 - Username: remotelarning@tryamplify.net
 - Password: remotelarning2020
- Find the Vision and Light Simulation or [click here for it](#)

[Glossary for Vision and Light Vocab](#)

Brainpop Jr. Vision and Light Videos:

- [Light](#)

Magic School Bus Episodes:

- [Season 3 Episode 5: “Gets a Bright Idea”](#)
- [Season 4 Episode 9: “Makes a Stink”](#)

Magic School Bus Rides Again Episodes (On Netflix Only):

- Season 2 Episode 5: “I Spy with my Animal Eyes”

Week 3 and 4 (4/13 - 4/24): Energy Conversions

Energy Conversions Class Books:

- [It’s All Energy](#) ([en español aquí](#))
- [Systems](#) ([en español aquí](#))
- [Energy Past and Present](#) ([en español aquí](#))
- [Blackout!](#) ([en español aquí](#))
- [Sunlight and Showers](#) ([en español aquí](#))

Class Simulation:

- First go to the [Amplify Science Login Page](#)
- Select “Log in with Amplify” and enter the username and password:
 - Username: remotelarning@tryamplify.net
 - Password: remotelarning2020
- Find the Energy Conversions Simulation or [click here for it](#)

[Glossary for Energy Conversions Vocab](#)

[Brainpop Jr. Energy Videos](#) (Energy sources, heat, light, sound)

Magic School Bus Episodes:

- [Season 2 Episode 10: "Getting Energized"](#)
- [Season 4 Episode 10: "Gets Charged"](#)

Magic School Bus Rides Again Episodes (On Netflix Only):

- Season 1 Episode 12: "Monster Power"

BONUS: Electrical Systems

Magic School Bus Episodes:

- [Season 4 Episode 11: "Gets Programmed"](#) (paid version [here](#) -- better quality)

Check out our BINGO boards below!

STEM AT HOME Outside Bingo Board

B	I	N	G	O
Look for the Big Dipper in the night sky. See if you can locate all 8 stars that make it up. (Yup there's 8 not 7)	Using sticks, create a shelter that can keep a piece of paper dry during a rainstorm. The shelter must have one door and two windows.	Find a comfortable place to sit outside. Sit outside in silence for 30 minutes. Write about what you experienced during this.	Put a stick into the ground and observe where its shadow is at 9am, Noon and 3pm. Make a prediction on where it's going to be at 6pm. See if your prediction is correct!	Build a home for a gnome: a fun little place for a critter to hang out in
At night, try to find red, white, orange and blue colored stars.	Using things you find outside create a musical instrument. Get some people together and have a jam band.	Collect leaves from at least six different plants. Find five different ways to sort them. Come up with some reasons on why they look different.	Find the largest rock you can. Draw a picture of it. Come up with an explanation on how that rock got there.	Find 20 different plants and animals that live in your backyard create a chart on how they interact with each other.
Draw what the moon looks like for a week. Make a prediction on what it's going to look like on the 8th day	Observe how an animal eats. Using materials found outside. Create a model of how that animal eats. Find a useful task for it to do!	Arrange sticks in such a way that it spells your name in a shadow.	Hide a special treasure outside. Create a treasure map. Give the map to someone and see if they can find the treasure using your instructions.	Build a birdfeeder and observe what different birds go there. Make a graph of the results. Come up for a reason why one bird shows up the most.
Listen for different types of animal calls. Make a prediction on what type of animal is making that noise.	Plant a vegetable or a fruit. Measure the growth everyday. Make a graph of how high it grows.	Collect 20 seeds from outside. Create a device that will spread them out so they can grow.	Find three rocks in your backyard. Describe what makes them different and come up with a hypothesis that explains how they got to be like that.	Find three different types of seeds. Explain why they look different and make a hypothesis on why they look the way they do.
At Night, find an object in the sky (that's not the moon). Come up with directions on how to find it. See if you can determine what the object actually is (planet, name of a star, type of star...etc)	Using materials that you find outside. Build something that can launch a tennis ball onto a target 10 feet away	Come up with a way to water a plant for 8 days without turning on any water source	Go for a walk around your neighborhood. Collect six different objects. When you get home write a story incorporating everything you found.	When it rains, put 3 glasses in different places in your backyard. Compare the different amounts of rainwater after it rains.



Lego Bingo

B	I	N	G	O
Build a race car, observe what happens when you change the wheel sizes	Design a marble maze, give it to a friend and see how long it takes them to solve it!	Build a boat that can propel itself across the bathtub	Write a 1 act play and design the set for it	Construct a device that can hit a target 3 times in a row
With the Lego blocks, create a secret code. Share the code with a friend and send messages to each other	Build a musical instrument, get some friends together and have a jam band!	Create a piggy bank that only you can open with a secret code or combination	Build the tallest tower you can that will survive a fan being directly blown onto it	Design something that will stop Lego pieces from hurting when you step on them
Design a device that can automatically feed a pet	Build a pencil case that will hold exactly 24 pencils	Free Space, build a spaceship and describe how it works	Design your own lego piece, design a pitch to lego creators on why it needs to be made	Make a tabletop version of a sport. Play with friends and have a championship tournament!
Design what your dream house/room would look like, label all key parts	Design a Bridge that has a span of 8 inches that can support a rock the size of your hand	Create a device that will launch a minifigure 4 feet!	Build something, write down the instructions to build it. Give them to a friend to see if they built what you build!	Take a minifigure for a walk outside. Take pictures of it on your walk. Write a story from the perspective of the minifigure
Research a famous building, design a replica of it out of Lego	Make a board game, including rules. Play with your family, get feedback to make it better	Build something that won't fall apart when you drop it from as high as you can reach	Using Lego pieces recreate a famous work of art or scene from a story	Build a tower that is 45 inches tall. But, the base is only 6 studs x 6 studs long



Engineering Bingo

B	I	N	G	O
Using www.scratch.mit.edu create a game that can be played by two people at the same time.	Make a device that can knock a ball into a goal (any type of ball, any type of goal)	Research a famous engineer, explain a little bit about their lives and what did they create?	Using www.tinkercad.com create a house that you think will withstand earthquakes, explain why it will.	Make a bridge out of Lego that has a span of 8 inches that can hold a rock the size of your fist
Create a structure out of paper and tape. That won't fall apart when a glass of water is poured onto it	Design and make a paper airplane; graph the distance of 10 flights	Build a boat that can hold weight of 30 pennies. Using paper and tape.	Using www.tinkercad.com create a visual poem.	Design a solution to keep the remote control from going missing
Write a story and narrate it using www.scratch.mit.edu	Design a catapult graph the distance of 20 different launches. Write down observations from your data.	Make up your own design challenge, give it to some else and see if they can solve it!	Using www.tinkercad.com make create a replica of a famous monument and remix it (make it your own)	Make racecar that will travel 1ft/second and then modify to go 3ft/second
Make your own puzzle and give it to 5 different people to solve, make a graph of how long it took each person to solve it.	Make a tower that is 45 inches tall with 2 pieces of computer paper and 5 inches of tape	Using six and only six lego piece create a duck and explain why it's the best duck	Using www.tinkercad.com create 3 different shapes that have the same volume, make sure to show your work! (make one compete shape)	Create a rube goldberg machine has 3-5 different elements.
Research a type of engineer and explain what they do and why it's important	Make a roller coaster for a marble or golf ball that will keep in moving for 30 seconds.	Build a catapult that can get a marshmallow (or similar) into a cup 3 times in a row.	Using www.tinkercad.com create an ANW Obstacle https://bit.ly/33dIOgT	Using rocks make a pyramid that is 10 inches tall. Pyramid must be made out of at least 10 rocks